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EXAMINER	
NGUYEN, BRIAN D	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,413	MLINARSKY ET AL.	
	Examiner	Art Unit	
	Brian D. Nguyen	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/22/04 & 3/17/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 9 and 22 are objected to because of the following informalities: Appropriate correction is required.

Claim 9, line 3, "an emulated RF environment" seems to refer back to "an emulated wireless environment" in line 3-4 of claim 4. If this is true, it is suggested to change "an emulated RF environment" to --"the emulated wireless environment--.

Claims 22 and 23, line 1, "said RF isolation chamber" seems to refer back to "isolation chamber" in line 3 of claim 17. If this is true, it is suggested to change "said RF isolation chamber" to --said isolation chamber--.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "said emulated wireless environment" in line 2. There is insufficient antecedent basis for this limitation in the claim. "said emulated wireless environment" seems to refer back to "an emulated wireless environment" in line 2 of claim 4 or "said emulated wireless environment" in line 3 of claim 5. Claim 6 should depend on claim 4 or 5 for proper dependency.

Claim 33 recites the limitation "said transmit arbitrator" in line 1. There is insufficient antecedent basis for this limitation in the claim. "said transmit arbitrator" seems to refer back to "a transmit arbitrator component" in line 4 of claim 30. Claim 6 should depend on claim 30 for proper dependency.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 29-30, 33-36, 39-42, and 45-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Oh et al (6,438,357).

Regarding claims 29 and 34-35, Oh discloses a test module, for use in a R.F test environment (see figure 1), comprising: an RF port to connect to the RF test environment (see different ports in figure 1); an adjustable attenuation component (46, 48, 50) in RF connection with the RF port; a modulator/demodulator component (56, 58, 50), in RF connection with the adjustable attenuation component; a virtual client emulator (mobile stations 62, 64, 66), to emulate at least one virtual client that is transmitting R.F signals in the IF test environment; wherein the virtual client emulator is in communication with the modulator/demodulator component to allow the at least one virtual client to transmit RF signals into the RF test environment.

Regarding claim 30, Oh discloses the virtual client emulator includes a receive filter and distributor (RFD) component, to process data frames received from the IF test environment; and a transmit arbitrator component, to process and transmit data frames to the RF test environment (as shown in figure 1, the communication between the base stations 10, 12, 14 and the mobile station 62, 64, 66 are bi-directional communication. Therefore, it is inherently that the receiver at the mobile will process data frames received from the test environment and the transmitter at the mobile station will process and transmit data frames to the test environment.

Regarding claim 33, Oh discloses the transmit arbitrator component (transmitter at the mobile station) transmits a data frame at a time when another device is transmitting data in the test environment (note that mobile stations 62, 64, 66 can transmit/receive data simultaneously).

Regarding claim 36, Oh discloses the test module receives data frames from a wired data packet network, and the test module transmits the received data frames in the RF test environment (the connection between elements 62, 64, 66 and 21 are wired connection).

Regarding claim 39-40 and 42, Oh discloses a method of emulating traffic in an IF test environment, comprising: providing a modulator/demodulator component (56, 58, 60), the modulator/demodulator component transmitting and receiving in the RF test environment; creating a plurality of virtual clients (62, 64, 66) in connection with the modulator/demodulator component, wherein the virtual clients transmit and receive data frames in the RF test environment through the modulator/demodulator component, and wherein the virtual clients each maintains information regarding such data frames (see figure 1 and col. 2, line 60-col. 67).

Regarding claim 41, Oh discloses when at least one virtual client is transmitting data frames into the RF test environment, a signal strength of an RF signal being transmitted from the

modulator/demodulator component into the RF test environment is reduced (attenuator 46 perform this function).

Regarding claim 45, Oh discloses 45 the transmission arbitration includes an ability to transmit at a time to create an on-air collision with another device transmitting in the RF test environment (note that when mobile stations 62, 64, 66 transmit at the same time, a collision can occur).

Regarding claim 46, Oh discloses the modulator/demodulator component (56, 58, 60) is in RF connection with an RF combining component (54), the IF combining component combining RF signals from a plurality of RF devices (62, 64, 66).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frostrom et al (5,465,393) in view of Oh et al (6,438,357).

Regarding claim 1, Frostrom discloses a test system for testing wireless devices (see figures 1 and 3), comprising: an RF combining component (see combiner); an adjustable attenuation component (see for example 24 in figure 1 and 80 in figure 3), in RF connection with the RF combining component; a test node (MS1 and MS2 in figures 1 and 3), in RF connection with the adjustable attenuation component, so that RF signals between the RF combining

component and the test node pass through the adjustable attenuation component, and wherein the test node includes a device under test (MS1 and MS2 are under test); a controller component (PC 200) controlling the adjustable attenuation component, wherein the controller component causes the adjustable attenuation component to vary RF signal strength between the RF combining component and the test node (see col. 4, lines 33-45). Frostrom does not specifically disclose the path is a bi-directional path. However, bi-directional path is well known in the art (see col. 1, lines 65-67 of Frostrom). Oh discloses the use of bi-directional path (see path at element 46). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the bi-directional path as taught by Oh in the system of Frostrom in order to reduce the number of cable used in the system.

Regarding claim 2, Frostrom discloses the RF combining component combines RF signals from a plurality of test nodes (see, for example, combiner 28).

Regarding claim 3, Frostrom discloses RF combining component includes disconnectable connection ports to allow additional test nodes to be connected to the RF combining component (see combiner 28 with two used ports and combiner 90 with four used ports).

Regarding claim 4, Frostrom discloses controller component maintains information for an emulated spatial position of the test node in an emulated wireless environment, and by causing the adjustable attenuation component to vary RF signal strength between the RF combining component and the test node, the controller component modifies the emulated spatial position of the test node in the emulated wireless environment (see col. 4, lines 33-45).

Regarding claim 5, Frostrom discloses the RF combing component combines RF signals from a plurality of test nodes, and the controller component maintains information for an

emulated spatial position in the emulated wireless environment for each of the plurality of test nodes, the controller component, by causing the adjustable attenuation component to vary RF signal strength, changes the emulated spatial position of the test node including the device under test in the emulated wireless environment (see col. 4, lines 33-45).

Regarding claim 6, Frostrom discloses controller component emulates objects causing RF signal distortion in the emulated wireless environment through adjustment of the adjustable attenuation component (see changing the amount of attenuation in col. 4, line 33-45).

Regarding claim 9, Frostrom discloses the system further including: a graphical display component, in communication with the controller component, the graphical display component to show the emulated RF environment with test nodes depicted in spatial relation to each other as defined by the information for emulated spatial position for each test node (see display 220 in figure 3A and col. 4, lines 38-45).

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frostrom in view of Oh as applied to claim 1 above, and further in view of Labedz et al (6,308,072).

Regarding claim 7, Frostrom in view of Oh does not specifically disclose an RF interference signal is introduced into the test system. However, simulate the effect of interference is well known in the art. Labedz discloses simulate the effect of interference (see abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to introduce an RF interference signal into the test system as taught by Labedz in the system of Frostrom in view of Oh in order to estimate the effect of the interference to the system.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frostrom in view of Oh as applied to claim 1 above, and further in view of Tanaka et al (2002/0084088).

Regarding claim 8, Frostrom in view of Oh does not specifically disclose the RF connection is provided by shielded cables. However, a shielded cable is well known in the art and to use a shielded or non-shielded cable is a matter of choice. Tanaka discloses a shielded cable (see title). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a shielded cable as it is well known in order to reduce interference to the signal.

10. Claims 10-13, 15-16, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frostrom et al (5,465,393) in view of Tanaka et al (2002/0084088).

Regarding claims 10-11 and 47, Frostrom discloses a method for emulating an RF environment for wireless devices, comprising: providing a plurality of connection nodes (MS1 MS2), and wherein at least one connection node includes a wireless device (MS1, MS2); combining (see combiners 28, 29,...) RF signals from the paths for the connection nodes; attenuating (see attenuators 24, 25,..) at least one RF signal on one of the paths, in order to emulate decreased signal strength caused by distance between connection nodes within the emulated RF environment (note that the variable attenuator can decrease/increase signal strength). Frostrom does not specifically disclose the cable is shielded. However, shielded cables are well known in the art and to use a shielded or non-shielded cable is a matter of choice. Tanaka discloses a shielded cable (see abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a shielded cable as it is well known in order to reduce interference to the signal.

Regarding claim 12, Frostrom further discloses: maintaining information for an emulated spatial position for each of the connection nodes within the emulated RF environment; and attenuating R.F signals on the paths in order to emulate distances between the connection nodes in the emulated RF environment that correspond to the emulated spatial positions for each of the connection nodes (see col. 4, lines 33-45).

Regarding claim 13, Frostrom further discloses changing an attenuation level of RF signals on the paths in order to emulate a change in an emulated spatial position for one of the connection nodes within the emulated RF environment (see col. 4, lines 33-45).

Regarding claim 15, Frostrom further discloses distorting an RF signal on one of the RF paths to emulate RF signals distorted by signal reflections in the emulated RF environment (see changing the amount of attenuation in col. 4, line 33-45).

Regarding claim 16, Frostrom further discloses providing a graphical display showing the emulated RF environment with the connection nodes depicted in spatial relation to each other as defined by the information on spatial position for each of the connection nodes (see display 220 in figure 3A and col. 4, lines 38-45).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frostrom in view of Tanaka as applied to claim 10 above, and further in view of Labedz et al (6,308,072).

Regarding claim 14, Frostrom in view of Tanaka does not specifically disclose an RF interference signal is introduced into the test system. However, simulate the effect of interference is well known in the art. Labedz discloses simulate the effect of interference (see abstract). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to introduce an RF interference signal into the test system as taught by

Labedz in the system of Frostrom in view of Tanaka in order to estimate the effect of the interference to the system.

12. Claims 17-23, 25-26, 28, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al (6,438,357) in view of Barton et al (6,385,739).

Regarding claims 17, 22, and 23, Oh discloses a RF module for testing an RF device (62, 64, 66) under test in a test environment (see figure 1); the RF device under test is in RF connection with an adjustable attenuation component (22 and 46, for example), and wherein the adjustable attenuation component is in RF connection with an RF port on the RF module; a controller (68), to control the connected RF device under test (see col. 2, lines 9-12). Oh does not specifically disclose the device under test is located within an isolation chamber. However, to put the device under test within isolation chamber is well known and is a matter of choice. Barton discloses a test system in which a device under test is located within an isolation chamber (see element 56, 10 of figure 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the isolation chamber as taught by Barton in the system of Oh in order to isolate the device to prevent interference from outside signals and noise.

Regarding claim 18, Oh further discloses wherein a connected RF device under test includes a second RF connection; and the connection port includes connections so that the second RF connection on a connected RF device under test is in RF connection to a second programmable attenuation component, the second programmable attenuation component in RF connection with the RF port through an RF combining component (see programmable attenuators 22, 46, 26, 48, ... and combining component 52 and 54 in figure 1).

Regarding claim 19, Oh further discloses wherein the RF port on the RF module allows interconnection to an RF combining component, the RF combining component to combine RF signals from other RF devices (see combining component 52 and 54 in figure 1).

Regarding claim 20, Oh disclose wherein the RF port on the IF module is electrically connected to a DC signal detector, to detect DC signals emanating from other RF modules interconnected with the RF combining component (note that the signal communicating between the combining component 54 and mobile stations 62, 64, 66 are DC (direct current) signal (digital signal not a waveform signal) communicating using a wired connection).

Regarding claim 21, Oh discloses a DC signal injector electrically connected to the port on the module (the mobile station inject DC signal through the wired connection to element 21).

Regarding claims 25-26, Oh further discloses signal access locations to allow injection of RF signals at the locations (see locations MS 1, MS 2, and MS 3 in figure 1).

Regarding claim 28, Barton further discloses the use of chassis (see col. 5, line 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the isolation chassis as taught by Barton in the system of Oh in order to improve the flexibility of the system.

Regarding claims 37-38, Oh does not specifically disclose the test module is detachably mountable within a isolation chassis. However, a test module is detachably mountable within a isolation chassis is well known and is a matter of choice. Barton discloses this feature (see element 56, 10 of figure 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the isolation chassis as taught by Barton in

the system of Oh in order to isolate the device to prevent interference from outside signals and noise.

13. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oh in view of Baron as applied to claim 17 above, and further in view of Tanaka et al (2002/0084088).

Regarding claim 24, Oh in view of Barton does not specifically disclose the RF connection is provided by shielded cables. However, a shielded cable is well known in the art and to use a shielded or non-shielded cable is a matter of choice. Tanaka discloses a shielded cable (see title). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a shielded cable as it is well known in order to reduce interference to the signal.

14. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oh in view of Baron as applied to claim 17 above, and further in view of Rudolf et al (2002/0041573).

Regarding claim 27, Oh in view of Baron does not specifically disclose synchronization signal for use in processing received data from the device under test. However, synchronization signal is well known in the art. Rudolf discloses synchronization signal (see paragraph 0014). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the synchronization signal as taught by Rudolf in the system of Oh in view of Baron to process the received data.

15. Claims 31-32 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al (6,438,357) in view of Uesugi (6,510,133).

Regarding claims 31-32 and 43-44, Oh does not specifically disclose creating data frames that are invalid in accordance with a selected protocol for the test environment or creating data

frames with incorrect checksums. However, these features are well known in the art. Uesugi discloses create data frames (null symbols) that are invalid in accordance with a selected protocol and with incorrect checksum (see figure 1 and col. 1, lines 51-54). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use invalid data frame as taught by Uesugi in the system of Oh in order to, for example, prevent leakage of unnecessary signal components to outside the band.

16. Claims 48-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al (6,438,357) in view of Tanaka and Barton.

Regarding claims 48-51, Oh discloses a method for testing a roaming (handoff) feature of a wireless device (62, 64, 66) comprising providing a first and a second access points (10, 12, 14), wherein each access point is in RF connection with the wireless device by a RF path to an RF combining component (52, 54) (see figure 1); establishing RF communications between the wireless device and the first access point; attenuating an RF signal on the RF path between the combiner and the first access point; monitoring the wireless as the wireless device establishes RF communication with the second access point over the RF path to the second access point (see col. 1, line 48-col. 2, line 12; col. 3, lines 61-67; and col. 4, lines 41-49. Note that a handoff is performed when a mobile moves from one cell to another, the mobile will establish a communication with the second cell before the handoff). Oh does not specifically disclose the path is a shielded RF path and the wireless device is in an isolation chamber. However, to use a shielded cable to protect the signal from interference and a test devices isolated in an isolation chamber is well known in the art. Tanaka discloses the use of shielded cable (see abstract) and Barton discloses the use of isolation chamber (see test bay in figures 2 and 7). Therefore, it

would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the shielded cable and isolation chamber as taught by Tanaka and Barton in the system of Oh in order to reduce signal interference.

Regarding claim 52, Oh in view of Tanaka and Barton does not specifically disclose measuring the time required for the wireless device to establish RF communication with the second access point. However, to measure the time required for the wireless device to establish RF communication with the second access point is a matter of choice because a timer can be used to measure the time. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to measure the time required for the wireless device to establish RF communication with the second access point so that this information can be used for system evaluation.

Response to Arguments

17. Applicant's arguments filed 3/17/05 have been fully considered but they are not persuasive.

The applicant argued that *the amended claim 1 recites "bi-directional" RF signals.* Oh shows bi-directional signals. The applicant argued that applicants have amended claim 17 to more clearly recite the feature of an isolation chamber having an RF device under test placed within it. This feature is clearly taught by Barton; in addition, isolation chamber can be anything that covers electrical circuits including a cellular phone cover. The applicant argued that claim 10 does not recite the same elements as claims 1 and 8. The examiner believes claim 10 recites **substantially** the same elements as claims 1 and 8; otherwise, the examiner should have made a

restriction to claim 10. In this office action, the examiner reject claim 1 and 10 separately. Regarding the well-known features such as shielded cable, the examiner includes a reference to show the well known feature. Regarding claims 7 and 14, the applicant argued that *claims 7 and 14 recite creating interference using RF signals. Labedz does not disclose this.* The examiner disagrees because Labedz simulates the effect of interfering AMPS wireless communication systems which coexist with CDMA wireless communication systems and also aids in the placement of new CDMA base-stations in the presence of existing AMPS base-stations. In theses systems, the interference is RF signals. In addition, the signal transmitted by MS2 can be considered interference signal to signal transmitted by MS1 when the two mobile stations are transmitting at the same time. Regarding the claimed DC signal, the signal in Oh is a DC signal, not a waveform signal. The connection between the mobile stations and the base stations are wired connection, not wireless connections. Regarding the claimed access locations, the applicant does not claim where and what the access locations are. Therefore, input/output port can be considered access locations. Regarding the claimed synchronization, this well-known feature is teaches by Rudolf. The applicants argued that *there are no virtual client emulators, these are mobile stations*. The examiner disagrees because the virtual client emulators (mobile stations) are wired connected to the base stations, not wireless connection. A real mobile station communicates with the base station wirelessly. Regarding creating of invalid data frames, this feature is well known, for example data frame contain null symbols is an invalid data frame. The examiner includes Uesugi reference to show this well-known feature. Regarding claim 39 with the feature "*wherein said virtual clients each maintains information regarding such data frames*". Regarding claims 39-46, in respond to the applicant's argument, claims 39-46 are now

separately rejected in this office action. Regarding claims 48-52, the applicant argued that Oh does not disclose an isolation chamber, Oh merely disclose testing in a laboratory setting. This argument is not persuasive because anything that isolate one element from the others can be considered an isolation chamber. The examiner includes Barton reference to clearly show this well-known feature.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D. Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/23/05

BRIAN NGUYEN
PRIMARY EXAMINER